

PHOTO ESSAY



An Atlas of Lumps and Bumps, Part 37: Keratosis Pilaris

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Keratosis Pilaris

Keratosis pilaris, frequently referred to as “chicken skin” by patients, is a disorder of keratinization of the infundibulum of pilosebaceous follicles characterized by keratinous plugs in the follicular orifices with varying degrees of perifollicular erythema.¹⁻⁷ Keratosis pilaris develops during childhood and reaches its peak during adolescence. The prevalence in adolescents of both genders is estimated to be at least 50%, while up to 80% of adolescent girls may be affected.⁸⁻¹⁰ The disorder involutes spontaneously and is less common during adult life.^{5,9} There is no racial predominance.^{11,12}

The exact etiology is not known. A defect in the keratinization process resulting in follicular plugging may be responsible.¹³ Mutations in the filaggrin gene may result in proliferation and inflammation of keratinocytes.¹³ Mutations of the ATP-binding cassette sub-family A member 12 (*ABCA12*) gene may account for some of the cases.¹⁴ An autosomal dominant mode of inheritance with variable penetrance has been postulated.^{8,9,11} The high prevalence and intensity seen at puberty suggests a hormonal influence. Hyperandrogenism in the presence of obesity is associated with an increased incidence and severity of keratosis pilaris.⁵

Keratosis pilaris is more common in patients with ichthyosis vulgaris, atopic dermatitis, and ectodermal dysplasia.^{7,8,15} Keratosis pilaris has also been reported to occur following the use of certain medications (e.g., nilotinib, vemurafenib) or as a reaction to contact with cutting oil.¹⁶⁻²⁰

Other conditions associated with keratosis pilaris include Noonan syndrome, Down syndrome, Cushing disease, diabetes mellitus, hypothyroidism, vitamin A intoxication, vitamin C deficiency, malnutrition, monilethrix, Hodgkin disease, monosomy 18p, and cardio-facio-cutaneous syndrome.^{8,11,15,21-24} Given the high prevalence of keratosis pilaris, caution is suggested in the interpretation of these associations.⁸

Keratosis pilaris typically presents as asymptomatic, minute, discrete, keratotic, follicular papules with variable perifollicular erythema (**Figure 1**).⁹



Fig. 1. *Keratosis pilaris typically presents as asymptomatic, minute, discrete, keratotic, follicular papules with variable perifollicular erythema.*

The lesions are not grouped and show no tendency to coalesce to form plaques.¹⁻⁴ The affected skin looks like gooseflesh and feels like sandpaper.¹⁻⁴ Keratin plugs cannot be expressed with pressure.⁸ The lesions are usually bilateral and symmetrical.¹⁻⁴ Sites of predilection include the lateral aspects of the upper arms, most commonly, followed by the thighs and face (**Figure 2**).¹⁻⁴



Fig. 2. Sites of predilection include the lateral aspects of the upper arms, most commonly, followed by the thighs and face.

The trunk buttocks, and distal extremities may also be affected.¹⁵ The hands and feet are usually spared, but palmoplantar markings are more accentuated.¹⁻⁴

Several clinical variants have been recognized, namely, unilateral keratosis pilaris, keratosis pilaris rubra, erythromelanosus follicularis faciei et colli, keratosis pilaris atrophicans, and papular, profuse, and precocious keratosis pilaris (with an age of onset younger than 18 months of age).^{10,13,25-30}

The diagnosis of keratosis pilaris is mainly clinical based on the presence of rough papules with follicular involvement mainly on the extensor surfaces of the upper arms, and less commonly, the thighs. The clinical features are so distinct that the diagnosis is usually straightforward. Typical dermoscopic features include coiled or twisted vellus hairs surrounded by peripilar casts within the stratum corneum.^{6,15,31} Other features include perifollicular erythema/hyperpigmentation and scaling.^{6,15,31}

Keratosis pilaris can be cosmetically unsightly. The rough skin texture can lead to psychosocial impact in affected patients.¹³

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EDITOR'S NOTE:

This article is part of a series describing and differentiating dermatologic lumps and bumps. To access previously published articles in the series, visit: <https://www.consultant360.com/resource-center/atlas-lumps-and-bumps>.

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